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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/282,425	03/31/1999	KENJI NAGASE	122.1366	8587

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EXAMINER

DAY, HERNG DER

ART UNIT	PAPER NUMBER
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2128

DATE MAILED: 12/17/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/282,425

Applicant(s)

NAGASE ET AL.

Examiner

Herng-der Day

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2003 and 25 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 11-15, 28-31 and 33-71 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11-15, 28-31 and 33-71 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This communication is in response to Applicants' Amendment (paper # 10) and RCE (paper # 11) to Office Action dated March 25, 2003 (paper # 9), mailed August 25, 2003, and September 25, 2003, respectively.

1-1. Claims 1, 3, 4, 12, 28-31, 33-38, and 64 have been amended; claims 1-5, 11-15, 28-31, and 33-71 are pending.

1-2. Claims 1-5, 11-15, 28-31, and 33-71 have been examined and rejected.

1-3. The indicated allowability of claims 4-5, 14-15, 31, 35, 38, and 61-71 is withdrawn in view of the newly discovered issues related to the rejections under 35 U.S.C. 112, first and second paragraphs, as detailed in sections 6 to 9-12 below.

#### ***Drawings***

2. The proposed drawing corrections to Fig. 15A were received on December 23, 2003. However, when comparing to Fig. 15B and Fig. 15C, it appears that the item "+I<sub>p1</sub> Z<sub>pp</sub>" should be "+I<sub>p1</sub> Z<sub>pp1</sub>". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application.

#### ***Abstract***

3. The abstract of the disclosure is objected to because it exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

***Specification***

4. The disclosure is objected to because of the following informalities:

Appropriate correction is required.

4-1. It appears that “in the apparatus for calculating immunity from a radiated electromagnetic field 1”, as described in lines 34-35 of page 11, should be “in the apparatus 1 for calculating immunity from a radiated electromagnetic field”.

4-2. It appears that “the current flowing through the electric current”, as described in lines 21-22 of page 13, should be “the current flowing through the electronic apparatus”.

4-3. It appears that “at the electric current”, as described in line 27 of page 19, should be “in the electronic apparatus”.

4-4. It appears that the equation as shown in line 14 of page 23 is incorrect.

***Claim Objections***

5. Claims 35 and 38-39 are objected to because of the following informalities. Appropriate correction is required.

5-1. Regarding claims 35 and 38, “the above the electric current”, as described in the last two lines of each claim. (Emphasis added.)

5-2. Regarding claim 39, “comparing a voltage generated and a specified position between conductor elements”, as described in lines 5-6 of the claim. (Emphasis added.)

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 40-43, 47-49, 51-54, 57-60, 62-65, and 68-71 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

7-1. Claims 40-41, 51-52, and 62-63 recite the limitation “the electric current calculated by the first calculating means” in lines 9-10 of each claim. However, the first calculating means, as claimed in the independent claim, is for setting a representative frequency and calculating the mutual impedance. The first calculating means does not calculate the electric current. Therefore, without undue experiment, it is unclear for one skilled in the art how to calculate the electric current by the first calculating means.

7-2. Claims 40-41, 51-52, and 62-63 recite the limitation “the prescribed intensity of electric field calculated by the second calculating means” in lines 14-15 of each claim. However, the second calculating means, as claimed in the independent claim, is for solving simultaneous equations under the moment method. The second calculating means does not calculate the intensity of electric field. Therefore, without undue experiment, it is unclear for one skilled in the art how to calculate the intensity of electric field by the second calculating means.

7-3. Claims 42-43, 53-54, and 64-65 recite the limitation “said first calculating means solves the simultaneous equations under the moment method” in lines 3-4 of each claim. However, the first calculating means, as claimed in the independent claim, is for setting a representative frequency and calculating the mutual impedance. The first calculating means does not solve the

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simultaneous equations. Therefore, without undue experiment, it is unclear for one skilled in the art how to solve the simultaneous equations by the first calculating means.

7-4. Claims not specifically rejected above are rejected as being dependent on a rejected claim.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-5, 11-15, 28-31, and 33-71 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9-1. All the independent claims recite the limitation “under the moment method” in the claim. There is insufficient antecedent basis for this limitation in the claim. For the purpose of claim examination, the Examiner will presume that “under the moment method” refers to “under a moment method”.

9-2. Claim 1 recites the limitation “the first calculation unit” in lines 18-19 of the claim. There is insufficient antecedent basis for this limitation in the claim. For the purpose of claim examination, the Examiner will presume that “the first calculation unit” refers to “the first calculating unit”.

9-3. Claims 1, 29, 33, and 36 recite the limitation “an upper wave sideband component” in the claim. The “upper wave sideband component” is vague and indefinite because it has not been disclosed in the specification. For the purpose of claim examination, the Examiner will presume that the “upper wave sideband component” refers to “upper sideband wave component”.

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**9-4.** Claim 28 recites the limitation “the mutual single impedance” in line 4 of the claim.

There is insufficient antecedent basis for this limitation in the claim. For the purpose of claim examination, the Examiner will presume that “the mutual single impedance” refers to “the single mutual impedance”.

**9-5.** Claim 33 recites the limitation “the first calculation means” in lines 26-27 of the claim.

There is insufficient antecedent basis for this limitation in the claim. For the purpose of claim examination, the Examiner will presume that “the first calculation means” refers to “the first calculating means”.

**9-6.** Claim 33 recites the limitation “the antenna” in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim. For the purpose of claim examination, the Examiner will presume that “the antenna” refers to “an antenna”.

**9-7.** Claim 36 recites the limitation “the first calculation process” in lines 25-26 of the claim.

There is insufficient antecedent basis for this limitation in the claim. For the purpose of claim examination, the Examiner will presume that “the first calculation process” refers to “the first calculating process”.

**9-8.** Claims 37 and 38 recite the limitation “the second calculating means” in the step of the “third calculating process” of each claim. There is insufficient antecedent basis for this limitation in the claim. For the purpose of claim examination, the Examiner will presume that “the second calculating means” refers to “the second calculating process”.

**9-9.** Claims 39, 50, and 61 recite the limitation “the conductors” in line 7 of the claim. There is insufficient antecedent basis for this limitation in the claim. For the purpose of claim

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examination, the Examiner will presume that “the conductors” refers to “said specified conductor elements”.

**9-10.** Claims 40-41, 51-52, and 62-63 recite the limitation “the weight source” in lines 13 and 14 of each claim. The “weight source” is vague and indefinite because it has not been disclosed in the specification. For the purpose of claim examination, the Examiner will presume that “the weight source” refers to “the wave source”.

**9-11.** Claims 44-49, 55-60, and 66-71 recite the limitation “mutual admitting this” in lines 3 and 6 of each claim. The “mutual admitting this” is vague and indefinite because it has not been disclosed in the specification. For the purpose of claim examination, the Examiner will presume that the “mutual admitting this” refers to “mutual admittance”.

**9-12.** Claims not specifically rejected above are rejected as being dependent on a rejected claim.

#### ***Allowable Subject Matter***

**10.** Claims 1-5, 11-15, 28-31, and 33-71 are not taught by the prior art, and would be allowable if the above rejections under 35 U.S.C. 112, first paragraph and second paragraph, are overcome.

#### ***Applicants' Arguments***

**11.** Applicants argue, as described in pages 30-33 of paper # 10, that Otsu and Nakanishi have not taught every claimed limitations.



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***Response to Arguments***

12. Applicants' arguments have been fully considered and are persuasive. Therefore, the rejections of claims 1-3, 11-13, 28-30, 33-34, and 36-37 under 35 U.S.C. 102(e) and 103(a) in paper # 9 have been withdrawn.

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

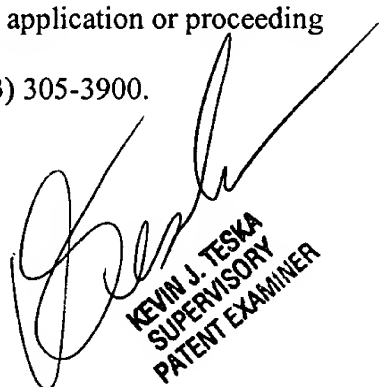
Reference to Wang et al., "A Frequency Extrapolation Algorithm for FISC", IEEE Transactions on Antennas and Propagation, Volume 45, Issue 12, December 1997, pages 1891-1893, is cited as disclosing an algorithm using moment method such that the induced current can be extrapolated to a broad band of frequencies.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Herng-der Day whose telephone number is (703) 305-5269. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin J Teska can be reached on (703) 305-9704. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Herng-der Day  
December 9, 2003



KEVIN J. TESKA  
SUPERVISORY  
PATENT EXAMINER